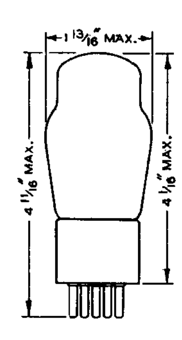
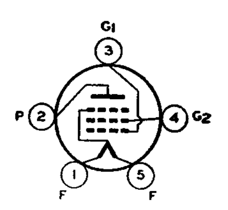


RCA-6A4



POWER-AMPLIFIER PENTODE

The 6A4 is a power-amplifier pentode of the 6.3-volt filament type for use in receivers employing a six-volt storage-battery filament supply. The 6A4 is interchangeable with type LA.

CHARACTERISTICS

Filament Voltage (A. C. or D. C.)				6.3	Volts
Filament Current				0.3	Ampere
Plate Voltage	100	135	165	180 *max.*	Volts
Screen Voltage (Grid No. 2)	100	135	165	180 *max.*	Volts
Grid Voltage* (Grid No. 1)	−6.5	−9	−11	−12	Volts
Plate Current	9	14	20	22	Milliamperes
Screen Current	1.6	2.5	3.5	3.9	Milliamperes
Plate Resistance (Approx.)	83250	52600	48000	45500	Ohms
Amplification Factor (App.)	100	100	100	100	
Transconductance	1200	1900	2100	2200	Micromhos
Load Resistance	11000	9500	8000	8000	Ohms
Self-Bias Resistor	615	545	470	465	Ohms
Power Output†	0.31	0.7	1.2	1.4	Watts
Bulb					ST-14
Base					Medium 5-Pin

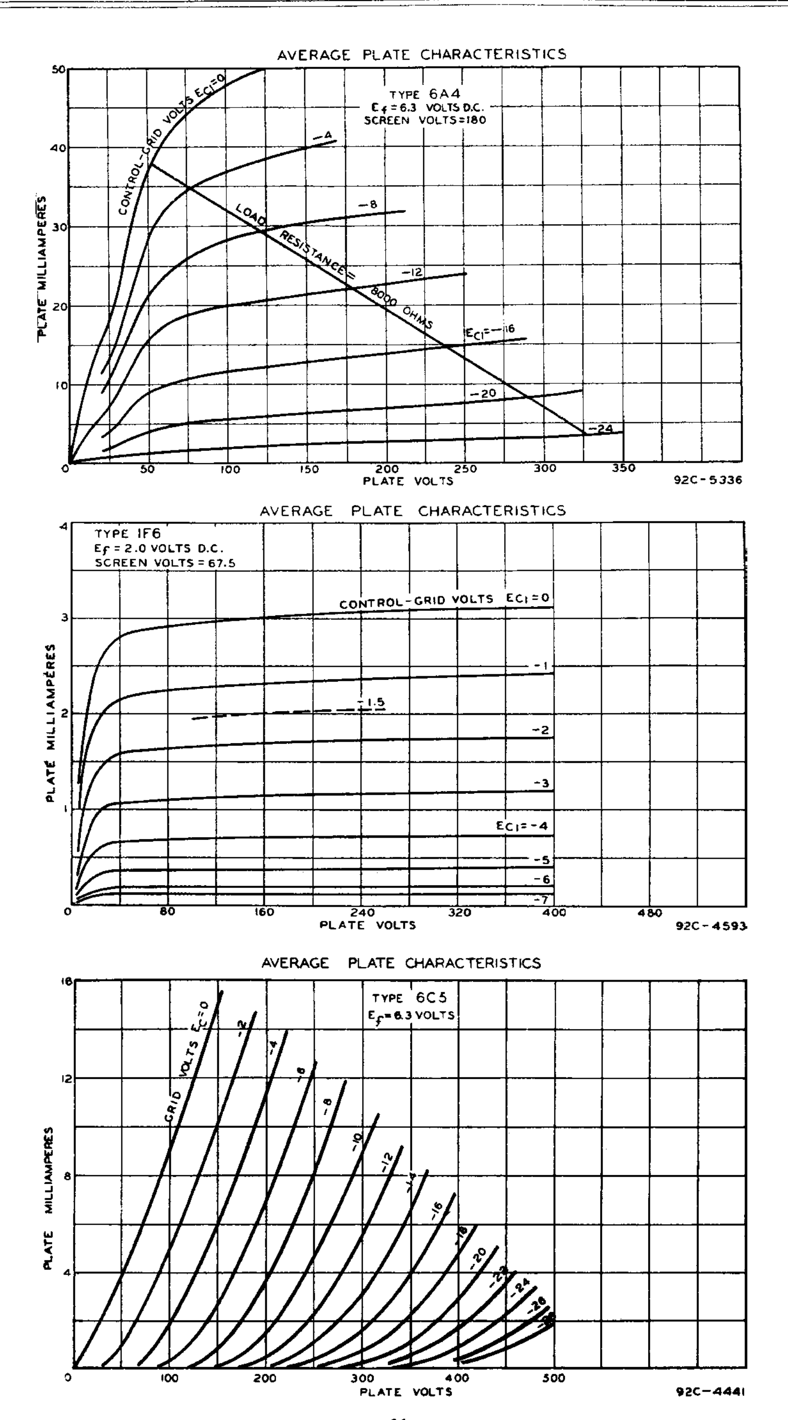
* Grid volts measured from negative end of d-c operated filament. If the filament is a-c operated, the tabulated values of grid bias should each be increased by 4.0 volts and be referred to the mid-point of filament.

† 9 per cent total harmonic distortion.

INSTALLATION AND APPLICATION

The base pins of the 6A4 fit the standard five-contact socket which should be mounted preferably to hold the tube in a vertical position. If it is necessary to place the tube in a horizontal position, the socket should be mounted with its filament-pin openings one vertically above the other. The coated filament of the 6A4 is primarily intended for operation from a six-volt storage battery. Socket terminal No. 1 should be connected to the positive battery terminal.

For the power amplifier stage, the 6A4 is recommended either singly or in push-pull combination. Transformer or impedance input-coupling devices are recommended. If, however, resistance coupling is employed, the grid resistor should not exceed 0.5 megohm. A family of plate characteristics for the 6A4 is shown on the following page.


AVERAGE PLATE CHARACTERISTICS
TYPE 6A4
Ef = 6.3 VOLTS D.C.
SCREEN VOLTS = 180
CONTROL-GRID VOLTS EC1=0
-4
-8
-12
EC1=-16
-20
-24
LOAD RESISTANCE = 8000 OHMS
PLATE MILLIAMPERES
PLATE VOLTS
92C-5336
AVERAGE PLATE CHARACTERISTICS
TYPE 1F6
Ef = 2.0 VOLTS D.C.
SCREEN VOLTS = 67.5
CONTROL-GRID VOLTS EC1=0
-1
-1.5
-2
-3
EC1=-4
-5
-6
-7
PLATE MILLIAMPERES
PLATE VOLTS
92C-4593
AVERAGE PLATE CHARACTERISTICS
TYPE 6C5
Ef = 6.3 VOLTS
GRID VOLTS Ec=0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24
-26
PLATE MILLIAMPERES
PLATE VOLTS
92C-4441